

IMPROVING CLINICAL  
DECISION MAKING FOR  
STROKE PREVENTION

*High-quality epidemiological studies have demonstrated that atrial fibrillation (AF) is the most potent common risk factor for stroke, and six randomized trials of anticoagulants in AF consistently demonstrated a risk reduction of stroke by approximately two-thirds. Nonetheless, anticoagulants remain under-used in clinical practice in patients with atrial fibrillation despite their proven efficacy for stroke reduction. Preliminary work with data from patients with AF and stroke in Veterans Integrated Service Network (VISN) 8 revealed that 38.3% of veterans were receiving anticoagulants at four weeks after discharge in FY2003. Reasons for the under-use of anticoagulation in AF patients are not totally known, but they include patient, provider, and health-care system barriers.*

## Making Choices: An Atrial Fibrillation Treatment Decision-Making Aid

The Stroke Quality Enhancement Research Initiative (Stroke-QUERI) is working to address provider and patient barriers to appropriate anticoagulation therapy. This project addresses the gaps in decision making by developing an implementation process and testing the feasibility of using a previously validated clinical decision-making tool – “Making Choices: An Atrial Fibrillation Treatment Decision-Making Aid” developed by the Atrial Fibrillation Decision Aid Group at the University of Ottawa.

This decision-making tool kit consists of a physician manual, and for patients, a personnel worksheet, audio recordings, and education booklets that are specific to four levels of stroke risk (low, medium, high, and very high), and detail the risk and benefits of therapy for stroke prevention in atrial fibrillation as described by the current American College of Chest Physicians recommendations.

In this demonstration implementation project, potential patients will be informed of the study by their physician and invited to contact the study team. Eligible veterans who contact the study team will be mailed the clinical decision-making tool kit and will be followed-up by telephone for consent and assessment about their use and opinions of the decision aid.

Physicians also will be provided with information on the patient education materials.

Veterans will be asked if they have a formal plan to be started on warfarin or aspirin in the next 30 days. Reasons for or against therapy will be ascertained. Veterans with a plan will be asked the relative strength of their personal input into the choice versus their physician’s using a 5-point Likert scale (patient choice). The content of the video and decision aid will be discussed via phone. After the decision aid process, patient knowledge, expectations, decisional conflicts (uncertainty about which therapy to choose), and satisfaction will be assessed using scales developed by the Ottawa group that developed the toolkit. A third phone call will be arranged for 30 days later to allow veterans adequate time to contact their physician. Veterans will be asked if they have begun therapy, or if they have made or had an appointment with their physician to discuss therapy.

Patient choice will again be assessed. The outcomes of interest include: 1) number of patients who complete the decision tool kit, 2) satisfaction, 3) knowledge/expectations, 4) decisional conflicts, and 5) number of patients who make an appointment with their physician during the 30-day period. The decision-making tool is patient-focused, and has the potential to be implemented in the VA’s care coordination and telehealth programs.

## *How Do I Learn More ?*

If you are interested in learning more about this project, please contact:

### **Rebecca Beyth, MD**

Physician Researcher  
NF/SG Veterans Health System  
Stroke-QUERI  
Tel: (352) 376-1611 ex. 4963  
E-mail: rbeyth@aging.ufl.edu

For information about Stroke-QUERI, contact:

### **Jini Hanjain, PhD**

Stroke-QUERI Administrative Coordinator  
Tel: (352) 376-6111 ex. 4933  
E-mail: jini.hanjain@va.gov

## *WEB RESOURCES*

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### **The Stroke-QUERI Executive Committee**

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## DETECTING AND TREATING POST-STROKE DEPRESSION

*This 3-year Stroke Quality Enhancement Research Initiative (Stroke-QUERI) project is being conducted at the Indianapolis VA Medical Center and the North Florida/South Georgia Veterans Health System, Gainesville Division to improve the quality of depression care provided to veterans with stroke. The goal of this project is to partner with VA clinicians and managers involved in the outpatient care of veterans with recent stroke to improve the detection and treatment of post-stroke depression.*

## CPRS-Based Depression Screener for Veterans with Stroke

The primary goal of the study is to extend the use of the current Computerized Patient Record System (CPRS) based depression screener in VA primary care clinics to target veterans who have survived stroke and are following-up in VA primary care or in VA neurology clinics within 6 months post-stroke.

The Stroke-QUERI team members at each site will identify colleagues from these clinics, and other related clinical areas, who are interested in working together – and having input into how veterans with stroke will be screened and treated for depression after stroke at their facility. The teams will develop a strategy to identify these recent stroke survivors at the time of outpatient follow-up in either primary care or neurology clinics, and to prompt screening using the existing CPRS-based depression screener.

The teams also will develop a strategy for fostering effective treatment of veterans with post-stroke depression. Ongoing use of the depression screener and trends in treatment of veterans with

post-stroke depression will be discussed among the teams quarterly to identify what aspects of the plan are working and what needs to improve to reach program goals.

A secondary aim of this project is to evaluate whether a patient-based, stroke self-management intervention provides additional benefit beyond modifying the system to improve depression detection and treatment. Investigators will focus on the veteran rather than the system of care, with aims to improve depression symptoms after stroke.

All veterans who survived stroke from both the Indianapolis and Gainesville VA healthcare facilities will be eligible to be randomized to this intervention versus usual care. The intervention will consist of face-to-face and telephone sessions designed to help them set goals, improve their understanding of depression symptoms and post-stroke recovery, and decrease their anxieties.

## *How Do I Learn More ?*

If you are interested in learning more about this project, please contact:

**Linda Williams, MD or Teresa Damush, PhD**

Richard L. Roudebush VA Medical Center  
Stroke-QUERI

Tel: (317) 554-0000 ex. 2321

E-mail: [linwilli@iupui.edu](mailto:linwilli@iupui.edu) or [tdamush@iupui.edu](mailto:tdamush@iupui.edu)

For information about Stroke-QUERI, contact:

**Jini Hanjain, PhD**

Stroke-QUERI Administrative Coordinator

Tel: (352) 376-6111 ex. 4933

E-mail: [jini.hanjain@va.gov](mailto:jini.hanjain@va.gov)

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STROKE PREVENTION:  
DIRECT-TO-CONSUMER  
IMPLEMENTATION STRATEGY

*As the consumers of their healthcare, veterans need to be engaged as active participants in the provision of their healthcare. The first step in this process is for veterans to become knowledgeable and aware of modifiable risk factors for stroke prevention. While there are many mediums available to convey information to patients, it remains unclear which format conveys prevention information most efficiently (i.e., to the largest audience at the lowest cost).*

## Are You at Risk for Stroke?

The principal aim of this Stroke Quality Enhancement Research Initiative (Stroke-QUERI) project titled “Disseminating Stroke Prevention Materials to Veterans: The Development of a Direct-to-Consumer (DTC) Implementation Strategy,” is to engage and encourage the veteran in helping to prevent stroke. This project will educate veterans about stroke risk factors and motivate them to request additional information using the recognizable character of “Sarge” from the Beetle Bailey cartoon. This project is a pre-implementation effort to design and develop a DTC strategy among veterans for primary and secondary stroke prevention.

Stroke-QUERI investigators worked with several VA programs, including My HealtheVet, Managing Obesity/Overweight Veterans Everywhere (M.O.V.E.), VISNs 8 and 11, the Malcom Randall and Richard L. Roudebush VAMCs, the facility Quality Performance Managers, the facility Associate Chief of Staff for Education, facility and outpatient Chief Medical Officers, as well as the American Stroke Association/American Heart Associations, and the National Stroke Association, to create the dissemination plan and educational materials to be distributed to veterans interested in reducing their risk for stroke.

The project will work to:

- Refine current evidence-based consumer materials about risk factors for primary and secondary stroke prevention for veterans,
- Determine the most effective targeted marketing strategy for implementation of stroke prevention materials to veterans, and
- Test the feasibility of our targeted marketing strategy for implementation of stroke prevention materials among veterans at selected sites in VISNs 8 and 11.

“Are YOU at Risk for Stroke?” posters will be placed in select VA medical centers and community-based outpatient clinic waiting areas and will serve as a direct-to-consumer marketing campaign, motivating veterans to find out more about stroke risk factors and stroke prevention. The program’s outreach into the veteran population will be evaluated with potential plans for a national dissemination effort in the future.

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NF/SG Veterans Health System  
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Tel: (352) 376-1611 ex. 4963  
E-mail: rbeyth@aging.ufl.edu

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#### HOME-BASED TELEHEALTH STROKE CARE

*The principal aim of this Stroke Quality Enhancement Research Initiative (Stroke-QUERI) project is to perform a needs assessment on stroke patients' and their family members' perception of home-telehealth services – an integration of information and communication technologies that enables a clinician and/or their family caregiver to maintain direct communication. This project tests the feasibility of using in-home messaging devices for veterans who have survived a stroke, and their informal caregiver (when available). The VA has widely implemented evidence-based disease management dialogues for veterans through an in-home messaging device for common chronic conditions, such as diabetes and heart failure, but little is known about the extent to which such dialogues are valid for veterans who have survived a stroke. QUERI investigators, along with VA's Rehabilitation Research Outcomes Center researchers, worked closely with VA's Office of Care Coordination and Health Hero, Inc. to create new dialogues specifically for veterans who have survived a stroke, and their caregivers. This project will provide important data on the validity of the post-stroke dialogue, information which is imperative before system-wide implementation.*

## Home-TeleHealth Dialogues

The origin of the questions used in the home-telehealth dialogues was based on pilot data collected through face-to-face interviews with seven veterans with a history of stroke and their caregivers (when available). These veterans were enrolled in a care coordination/home-telehealth program that focused on chronic diseases and had experience with video-phone or in-home messaging technology. In the pilot study, veterans and their caregivers were asked to describe their stroke experiences and how the technology could be adapted for veterans experiencing a new (recent) stroke. These veterans and their caregivers provided comprehensive descriptions of their experiences with stroke.

Based on these pilot interviews, questions were written to assess veteran and caregiver needs, including support for the caregiving role, unaddressed issues and concerns of both the veteran and the caregiver, as well as the frequency and risk of falling. Stroke-QUERI also used instruments that had been validated for self-report. These instruments include the Stroke Impact Scale, an abbreviated Zarit Caregiver Scale (for the caregiver only), and an abbreviated PHQ-2 depression scale (for veterans only).

Data from this needs assessment will be critical in providing the necessary information for a proposed clinical trial to examine the effectiveness of a home-telehealth intervention in the improvement of quality of life, functional status, and patient satisfaction – and the extent to which service use and costs are reduced for veterans with stroke and their family members versus stroke survivors receiving usual care.

### Home-Telehealth and the Veterans Health Administration

The Veterans Health Administration (VHA) is a recognized leader in the development and implementation of home-telehealth services. Home-telehealth services within VHA have shown some promise in facilitating physiologic measurements and diagnostic testing. It has been shown to obviate unnecessary services (e.g., hospital admissions) and reduce costs for veterans with particular chronic diseases, such as diabetes and hypertension. As the number of veterans who need more non-institutional long-term care services is expected to increase dramatically, home-telehealth may be viewed as one particular type of service that could fill this need for VHA.

## *How Do I Learn More ?*

If you are interested in learning more about this project, please contact:

**Neale Chumbler, PhD**

Research Health Scientist  
NF/SG Veterans Health System  
Stroke-QUERI

Tel: (352) 376-1611 ex. 4920

E-mail: [Neale.chumbler@med.va.gov](mailto:Neale.chumbler@med.va.gov)

For information about Stroke-QUERI, contact:

**Jini Hanjain, PhD**

Stroke-QUERI Administrative Coordinator

Tel: (352) 376-6111 ex. 4933

E-mail: [jini.hanjain@va.gov](mailto:jini.hanjain@va.gov)

## *WEB RESOURCES*

For more information about home telehealth, visit the following websites:

[www1.va.gov/visn8/nfsg/clinical/TeleHealth/sites\\_gainesville.asp](http://www1.va.gov/visn8/nfsg/clinical/TeleHealth/sites_gainesville.asp).

[vaww.va.gov/occ/TH/TelehealthMain.asp](http://vaww.va.gov/occ/TH/TelehealthMain.asp).

[vaww.va.gov/occ/HomeTelehealth/telehealth.asp](http://vaww.va.gov/occ/HomeTelehealth/telehealth.asp).

[www.healthhero.com](http://www.healthhero.com).

[www1.va.gov/rorc](http://www1.va.gov/rorc).

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